

In the Claims:

Claims 1-12 (Canceled)
Claim 13 (Withdrawn)
Claims 14-22 (Canceled)
Claims 23-35 (Withdrawn)

36. (Currently Amended) A configurable vision processing system for connection to a personal computer (PC), said configurable vision processing system comprising:

a local peripheral component interconnect (PCI) bus;

a vision accelerator subsystem coupled to said local (PCI) bus, said vision accelerator subsystem including a processing accelerator and at least one image memory interfaced with said processing accelerator;

a digitizer subsystem directly coupled to said local (PCI) bus, said digitizer subsystem including a digitizer and at least one camera coupled to said digitizer; and

a vision central processing unit (CPU) subsystem coupled to said local (PCI) bus, said vision CPU subsystem including an embedded vision system CPU, a host bus bridge for interfacing said vision system CPU to said local (PCI) bus, system memory, at least one system peripheral, and a display controller for interfacing a local display to said local (PCI) bus.

37. (Previously Added) The configurable vision processing system of claim 36 further including a peripheral bus bridge coupled to said local PCI bus, wherein said peripheral bus bridge is adapted to be coupled to a host PCI bus within said PC such that said configurable vision processing system is implemented as a PCI add-in extension board.

38. (Previously Added) The configurable vision processing system of claim 37 wherein said display controller has an identification selection (IDSEL) line connected to a PCI address line of said local PCI bus in a range of AD[15:11] and wherein said host bus bridge has an IDSEL line connected to a PCI address line of said host PCI bus in a range of AD[31:16].

39. (Previously Added) The configurable vision processing system of claim 38 wherein said vision CPU subsystem includes means for controlling a reset release and an identification selection (IDSEL) connection sequencing of devices connected to said local PCI bus to temporarily disable said devices from said local PCI bus.

40. (Previously Added) The configurable vision processing system of claim 37 further including a back-door signal between said peripheral bus bridge and said vision CPU subsystem, for resetting said vision CPU subsystem if said vision CPU subsystem locks up.

41. (New) A configurable vision processing system for connection to a personal computer (PC), said configurable vision processing system comprising:

- a local peripheral component interconnect (PCI) bus;

- a vision accelerator subsystem directly coupled to said local (PCI) bus, said vision accelerator subsystem including a processing accelerator and at least one image memory interfaced with said processing accelerator;

- a digitizer subsystem directly coupled to said local (PCI) bus, said digitizer subsystem including a digitizer and at least one camera coupled to said digitizer; and

- a vision central processing unit (CPU) subsystem coupled to said local (PCI) bus, said vision CPU subsystem including an embedded vision system CPU, a host bus bridge for interfacing said vision system CPU to said local (PCI) bus, system memory, at least

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one system peripheral, and a display controller for interfacing a local display to said local (PCI) bus.